

April 7, 1986:

Reason for Job: To clean well out for channelblock job.

*Pulled and  
left out PKV*  
Rigged up Splane well servicing unit and company wash equipment. Ran a string of 1" 10 rd. pipe in well and washed to a T.D. of 730'. Pulled 1" up to 685' and spotted 1 keg of acid on perms. Displaced acid out of 1" and pulled pipe. Hooked on well and broke down. Well was taking water at 350 - 400#. Moved equipment and moved in channelblock unit.

April 8, 1986:

Mixed with 50 BBls. fresh water 96.5 lbs. synthetic polymer (5,500 ppm), 175 lbs. salt and 17.5 lbs. Calcium Chloride. In line mixed 4.8 lbs. Sodium Dichromate and 19.3 lbs. Sodium Thiosulfate. Began injection with 35 B/D rate at 11:30 a.m. At 3:00 p.m. 4 BBls. injected, pressure was 250 psi.

April 9, 1986:

Mixed with 30 BBls. fresh water 58 lbs. synthetic polymer (5,500 ppm), 105 lbs. salt and 10.5 lbs. Calcium Chloride. In line mixed 2.9 lbs. Sodium Dichromate and 11.6 lbs. Sodium Thiosulfate. Continued injection at 35 B/D rate. At 12:30 34 BBls. injected, pressure was 430 psi.

April 10, 1986:

At 2:00 p.m. pressure was 520 psi. Completed injection of 80 BBls. polymer at 8:00 p.m. Polymer did not show in any of the nearby producers.

September 24, 1986:

Reason for Job: To Increase Injection to Rec. Rate.

Current: 40 B/D @ 600 psi  
Rec.: 70 B/D

Rigged up company pulling unit and wash equipment. Ran a string of 1" 10rd pipe with small bit. Washed well to a T.D. of 745'; it would set down like it was on rubber. Circulated hole clean. Pulled 1" up to 685' and spotted 2 kegs of acid on perfs and displaced out of the 1" pipe. Closed 1" in and pumped 1 bbl. of lease water on the annulus. Closed well in for 1½ hrs. Opened well and backflowed until acid came back and washed hole clean again. Spotted 2 kegs of acid on perfs @ 685' and pulled 1". Hooked back up and pumped 2 bbls. of lease water @ 550# and hooked on injection line. Rigged down.

September 25, 1986:

55 bbls. @ 460 psi

September 26, 1986:

65 bbls. @ 540 psi

May 1, 1987:

Reason for Job: To lower pressure on channelblock  
Current: 74 B/D @ 600psi  
Rec.: 105 B/D

Broke down wellhead and back flowed well. Rigged up and ran string of 1". Set down on solid bottom, 741'. Washed and spudded down to 775', getting out heavy solids. Washed hole clean. Pulled up to 675'. Spotted 3 carboys acid and displaced out of 1". Let set and work 1 hour. Blew well down. Set to bottom and washed up; still getting heavy solids. Pulled up to 675'. Spotted 3 carboys acid and displaced out of 1". Pulled 1" out and hooked well back to injection.

May 2, 1987: 87 B/D @ 470 psi

May 3, 1987: 113 B/D @ 480 psi

May 4, 1987: 65 B/D @ 540 psi

June 26, 1987:

Reason for Job: To split "B" and "C" injection zones

Run string of 1" with blind bottom held down. Set hold down in seating nipple at 684'. Hooked up to dual injection system.

November 4, 1987:

Reason for Job: To Increase Injection      Curr.: B & C Zone  
20 B/D @ 630 psi  
Rec.: Both zones 105 B/D

Dual Inj. Hookup -

Unseated hold down and circulated clean. Pulled 1", put on bit and reran. Set down soft bottom at 695'. Washed to 775' - large amount of polymer. Pulled up to 720'. Spotted 55 gal. 28% acid, worked into perfs with 4 bbls. water. Shut well in.

November 5, 1987:

Set 1" on bottom and circulated clean. Hooked to casing and pumped into well with 12 bbls. water at  $\frac{1}{2}$  bbl./min., below 500 psi. Pulled 1", put on hold down and reran. Hooked up to injection.

"B"

"C"

11-6-87: 46 B/D @ 450 psi

30 B/D @ 490 psi

11-7-87: 41 B/D @ 520 psi

42 B/D @ 520 psi

11-8-87: 57 B/D @ 530 psi

27 B/D @ 530 psi

December 19, 1988:      Reason for Job: Hole in Casing

KW-51 Injection - Observed that well was leaking, had hole in casing below 20' of surface. Set up Evans Pulling Unit, ran in 110' of 1" pipe with 2 7/8" upside down Jay Packer. Hooked back up to injection system.

November 1, 1990:      Current: 0 bbls. @ 650 PSI      Rec.: 80 B/D

Set up Company pulling unit. Pulled 1" and packer. Ran to 700' with 1" and washed well clean. Spotted 75 gallons 28% acid. Pulled 1". Ran 2½" packer on 1" pipe and set at 110'. Turned back on to injection.

November 2, 1990:

53 bbls. @ 0 PSI

August 28, 1992:

Set up Company coil unit. Ran down to bottom of well and spotted 55 gallons acid on perforations. Pulled out tubing and hooked up to injection system. Well has a leak in casing down too far for backhoe to reach. Shut off.

August 3, 1993:      OBJECTIVE: To Repair Shallow Casing Leak

Casing: 2 7/8" EUE      Surface: 7" @ 50'

Using a trackhoe, the well was dug out to where the surface pipe was cut off previously (approx. 7'). Rigged up mud pump and ran 1" tubing down the annulus. Began circulating and washed down the annulus. While circulating, the fluid inside the casing was bouncing to the surface. This indicated the hole in the casing was not restricting the fluid at all. Worked tubing down to a depth of 22'.

It was decided to get 3/4" tubing to wash with because the 1" collars were too big. Inserted 5½" collar inside of the 7" surface pipe with 7' of 5½" casing extension and welded into place. The trackhoe backfilled the hole. Shut down for the day.

August 4, 1993:

Ran down the annulus with 3/4" tubing and began circulation. The tubing stopped at 31'. Rotated the pipe for 10 minutes and could not get down any further. Placed a valve on the 2 7/8" casing to prevent the casing from filling with cement. Mixed four sacks of cement and poured into 3/4" tubing. The cement equalized to surface (u-tubed). The valve began to leak, indicating the cement was coming inside the casing. Placed a bull plug in top of the valve. Pulled 3/4" pipe and topped off the well.

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August 6, 1993:

Ran 1" tubing inside of 2 7/8" casing to see if any cement had leaked inside the casing. Ran to a depth of 100', but did not find any cement.

August 13, 1993:

Using air compressor furnished by TOP Wireline Services, attempted to run MIT by fluid depression. Well would not hold pressure - failed test. Apparently leaked around surface casing.

August 20, 1993:

Ran 1" tubing to T.D. of 777' and washed well clean with plant pressure. Left 1" suspended and moved unit to another well.

August 24, 1993:

Pulled 1" pipe from well and shut down. Making plans for the next step.

September 10, 1993:      Attempt to shut off water coming to surface

Rigged up Klein Well Service pulling unit. Set 2 7/8" packer on 1" at 25' and pulled up to set, then clamp off. Left on clamp; water flow shut off.

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February 11, 1998:

Using Company pulling unit, pulled 1" pipe and packer. Ran SLM-bottom @ 673'.

February 12, 1998:

Prepared to plug and abandon. Shut off injection into Well No. RW-20.

Moved 1" from No. RW-8 to location.

Used Company pump truck to wash 1" down. Ran 1" and washed to 680'. Hit a very hard bridge. Washed out alot of very black water and very hard, black solids; saved samples. Washed 1" pipe to 775'. Well is clean and ready to plug.

February 13, 1998:

Using Company pulling unit and A & A Well Service, started pumping cement slurry down 1" pipe at 8:45 a.m. (see sample marked #1). Used ready-mix cement from Payless Concrete, Iola, Ks.

Pumped six sacks of cement slurry (see sample marked #2). Time 8:58 a.m. Pulled six 25' joints of 1" pipe and then at 9:15 a.m. pumped ten sacks of cement slurry (see sample marked #3). Pulled all but four joints of 1" pipe and pumped six sacks of cement slurry. Cement slurry had circulated to the surface and filled 2 7/8" casing.

Pulled all of 1" pipe and put on trailer. Washed 1" pipe with fresh, clean water on inside and outside. Cement slurry had not settled down inside of 2 7/8" casing. Tried to pump cement into 2 7/8" casing. Top 8' nipple leaked at bottom thread. Unscrewed 8' nipple and filled hole around well with slurry (see sample #4). Well plugged and abandoned.

February 14, 1998:

Cement samples completely set and all appear competent.